

## **Selection of Screening Categories for Models: DOE Perspective**

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### **ABSTRACT**

Emergency response activities include both facility/fixed-site emergency preparedness and response as well as deployable assets in order to protect the public from major radiological accidents and terrorist events. The concept of support includes a local modeling capability with connectivity to a centralized comprehensive modeling facility. This provides the capability to handle various applications from simple to complex at different ranges and also provides an element of consistency across DOE. There are a number of challenges in providing emergency response with the key ones including source term definition, the integration of measurements with models, obtaining multi-scale meteorology, bounding uncertainty, and the presentation of information to decision makers. The dispersion forecast is driven by meteorological factors, however the scale of meteorological forecasts is down to a few kilometers whereas the scale of required dispersion predictions is down to a few meters.